

Appl. No. 09 / 287,478  
Amdt. Dated: May 14, 2003  
Reply to Office action of Dec. 15, 2003

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- b) Transmitting Form Structure Data to said at least one Client, said Form Structure Data comprising at least one of i) a display list of User Interface (UI) elements such an HTML/XML <FORM> or ii) software instructions for creating a similar client UI, such as JavaScript, Java, ActiveX, etc.
  - c) Accepting User Form Data from said at least one Client.
  - d) Merging said Form Data from said at least one Client with other data, including template data.
  - e) Processing said merged data to produce output data, wherein said output data are functions of a simulation and in a format compatible with said at least one Client Browser instructions.
  - f) Transmitting said output data to said at least one Client.
2. (original) The computer network of Claim 1 wherein only steps c-f may be repeated for each new simulation of the same form and wherein only steps b-f may be repeated for each simulation of a new form.
3. (previously presented) The computer network of Claim 2 wherein at least some of said output data is automatically rendered by Client Browser methods for graphical display.
4. (original) The computer network of Claim 1 wherein said Unique Identifier is used to keep the data of each user separate from all other users, with high probability (>99%).
5. (original) The computer network of Claim 4 wherein said user data is stored in temporary files with a limited lifetime.
6. (original) The computer network of Claim 1 wherein the Unique Identifier is made verifiable by means of an internal checksum.

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7. (previously presented) The computer network of Claim 6 and further comprising a database of Unique IDs, simulation counts and timestamps, indexed by at least said Unique ID and stored in at least one Server and further comprising the following additional steps before processing of merged data:
- a) Lookup the Unique Identifier in the database and retrieve the associated simulation count and timestamp. If no record found, create a new database record associated with the Unique Identifier and having the simulation count initialized to zero (0) and the timestamp initialized to the current time.
  - b) If said timestamp has become older than a certain threshold, delete said simulation record and return to step a)
  - c) Using said Identifier, simulation count and timestamp, determine if the number of simulations per unit time has exceeded some threshold.
  - d) Simulate only if said threshold has not been exceeded.
  - e) Increment the number of simulations performed and save updated record of at least Unique Identifier, updated simulation count and timestamp in database.
8. (original) The computer network of Claim 7, wherein the simulation count is used to lower the process priority of the simulation.
9. (previously presented) The computer network of Claim 1, wherein additional steps related to circuit synthesis are inserted just before step b), such steps comprising
- aa) Transmitting Circuit Synthesis Form Structure Data to said Client
  - bb) Accepting Circuit Synthesis Form Data from said Client
  - cc) Synthesizing a circuit according to said Form Data, where said synthesized circuit and other temporary files are optionally kept on the Server and indexed by means of the Unique Identifier for eventual use in step e).

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dd) Creating Form Structure Data for use in step b), said Form Structure Data containing circuit topology data.

10. (original) A network simulation method, comprising the steps of

- a) Creating and transmitting a Unique Identifier from a Server to a Client.
- b) Transmitting Form Structure Data from a Server to said Client.
- c) Accepting User Form Data into a Server from said Client.
- d) Merging said Form Data from said Client with other data, including template data.
- e) Processing said merged data to produce output data, wherein said output data are functions of a simulation and in a format compatible with said Client Browser.
- f) Transmitting said output data to said Client.

11. (previously presented) The computer network of Claim 1, wherein said assigned Unique Identifier is associated with superior or inferior privileges, said privileges comprising at least one of: a) access to models and circuits, b) simulation priority and/or maximum simulation time, c) quality/accuracy of simulation methods employed, d) the maximum size and/or persistence of design and/or simulation data.

12. (previously presented) The computer network of Claim 14, wherein said assigned Unique Identifier may be saved in the Client's browser (e.g., a "Cookie") to permit a simulation or synthesis session to be suspended and resumed at a later time without requiring the user to re-qualify for access.

13. (previously presented) The computer network of Claim 1, wherein some portion of the said User Form Data is logged together with at least said Unique Identifier for marketing, sales or debugging purposes. Suitable storage mechanisms for said logged data include, but are not limited to: a) HTTP log file (if HTTP GET mechanism used

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to initiate simulation), b) file of a type and format determined by the simulation software or c) database record.

14. (previously presented) The computer network of Claim 1, wherein said Unique Identifier is created and transmitted contingent upon the user qualifying for access by successfully conveying appropriate qualification data from the Client to the Server.

15. (new) A network of computers comprising at least one Client, said at least one Client including memory means containing instructions for a Browser, and at least one Server communicatively couplable to said at least one Client, said at least one Server including memory means containing instructions for implementing a simulation method, said simulation method comprising the steps of:

- a) Creating and transmitting a Unique Identifier to said at least one Client.
- b) Transmitting Form Structure Data to said at least one Client.
- c) Accepting User Form Data from said at least one Client.
- d) Merging said Form Data from said at least one Client with other data, including template data.
- e) Processing said merged data to produce output data, wherein said output data are functions of a simulation and in a format compatible with said at least one Client Browser instructions.
- f) While processing said merged data to produce output data, simultaneously capable of accepting and processing new User Form Data from the identical Client, reception of said new User Form Data causing present execution of simulation method to be aborted and associated resources freed in favor of processing of said new User Form Data. Where such replacement data is received, step g of the present simulation method instance is not executed. If no such replacement data is received, processing completes and step g is executed.
- g) Transmitting said output data to said at least one Client.

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16. (new) The computer network of Claim 1 with the additional ability to execute a plurality of simulation method steps c-f from a single Client concurrently, said plurality being reduced to a single simulation method by aborting all but the method steps corresponding to the last submitted Client User Form Data.